Minutes of the AFS Southern Division Trout Committee Meeting
April 5-6, 2011
New Germany State Park, Maryland

The 2011 meeting of the Southern Division of the American Fisheries Society Trout Committee was called to order at approximately 8:00 AM by Jeb Wofford, chair. The following Trout Committee members were present: Mike Shingleton (WV), Jim Habera (TN), Larry Mohn (VA), Mark Hudy (USFS), Alan Heft (MD), Matt Sell (MD), Steve Moore (NPS), and Jeff Williams (AR). Others present: Tom Whelan (MO), Karen Knotts (MD), and Alan Klotz (MD).

Following self-introductions of all those present, Chair Jeb Wofford addressed general housekeeping items to include lodging and lodging payment.

Chair Jeb Wofford determined that the required quorum of ten voting members was not present. It was discussed that any decisions on items would be confirmed via e-mail among Trout Committee membership.

Old Business

Chair Jeb Wofford stated that the minutes of the 2010 meeting in Asheville, NC had been distributed following the meeting. Comments and revisions had been received and incorporated into the minutes. Larry Mohn made a motion to accept minutes as written and Steve Moore seconded. The motion passed unanimously.

Treasurer's Report: Jeff Williams (treasurer) read the treasurer's report and provided copies to all members. The balance brought forward from just before the 2010 meeting in Asheville was $2,274.16. No additional income had been received during the year. Total disbursements during the year totaled $1,414.88. This resulted in a balance as of March 28, 2011 of $859.28. Total disbursements included $162.00 in bank maintenance fees. Treasurer Williams indicated that following the 2010 Asheville meeting Jeb Wofford had suggested we look for an account with no monthly maintenance fees to eliminate the drain on committee funds. Treasurer Williams went on to say that he had looked at a number of banks, but all those had fees associated with their business checking accounts. He stated that the fees generally kicked in when the account dropped below a certain balance (approximately $2,500 in the case of the current Bank of America account). Williams went on to say that the monthly fees had increased substantially over the year (from $12 per month to $14 per month), which made it even more a priority to switch accounts in the coming months. Larry Mohn suggested looking into credit unions. A motion to accept the report was made by Jeb Wofford and seconded by Steve Moore. The motion passed unanimously.

Update on AC/DC electrofishing study publication: Jim Habera reported that the manuscript for the study comparing AC vs. pulsed-DC gear in three-pass depletion sampling had been accepted and published in the North American Journal of Fisheries Management in May 2010. Jim thanked the committee for their patience and support. He went on to say that the study had been initiated to contribute to the revision of standardized sampling procedures developed by the

Trout Committee. Although the study was now complete, Jim indicated that he was unsure of the current status of the standardized sampling procedures. He then raised the question if they were needed now since some states already have developed their own standardized sampling protocols, which resulted in a fairly lengthy discussion.

Steve Moore stated that the standardized procedures were never intended to supersede a state's protocol, but having standardized procedures on a few streams or sites in each state would be beneficial as it would allow for comparison.

Mark Hudy indicated it would be difficult to alter someone's existing electrofishing protocol because of existing data sets. Identification of index stream would require planning up front and identification of specific objectives. What factors would we want to evaluate? Impacts of climate change, acid rain, or development?

Chair Jeb Wofford asked if data from stream samples using standardized procedures may already exist.

Larry Mohn suggested that we may want to write up specifically why we want to have standardized sampling data on a set of streams on a regional level and ask member agencies who are already doing this. Do we want to be able to detect long term trends? Again the first steps would be to define objectives and determine the information that would be needed. After that the approach (methods) needed as well as the feasibility of such an effort could be evaluated.

Steve Moore stated that having standardized data on a set of streams across the region would be more defensible in addressing issues that affect the region. The standardized procedures would become a secondary objective if the decision is made to proceed with a regional effort.

Mark Hudy asked if some of the objectives were already identified by the EBTJV. He went on to say that we need the ability to look at interactive effects. He said one approach may be to flesh out the plan to evaluate climate change impacts and then assess the plan from the standpoint of other questions that we may want to answer.

Jim Habera proposed that he and Steve Moore draft a survey to ask member agencies questions regarding the objectives of their individual sampling efforts as well as the gear and methods employed. This survey would also allow us to evaluate the interest in contributing to a regional approach. Both agreed that the survey could be carried out later this spring.

Mark Hudy will begin drafting a plan to evaluate the impacts of climate change.

Website Updates: Jim Habera first thanked Fred Jansen for his assistance in getting the Trout Committee website updated. Jim said that as of now the website should be fully updated to include current officers and the proceedings document. This is a document that Jim has been keeping up to date that summarizes all of the Trout Committee's activities and meetings since its inception. Mark Hudy suggested that the 1985 electrofishing study be included in the proceedings document and Jim agreed.

MICROFISH Update: Jeb Wofford stated that Jack VanDeventer has been working on MICROFISH version 4 and that it should be completed by June 2011. The new version would be available in October 2012 for a license fee. Jack had indicated, however, that he would run a sample report for free for any state agency.

New Business

Trout Committee Member List Update: Chair Jeb Wofford passed around a member list for members to make any needed corrections.

Distinguished Service Awards: Jim presented Distinguished Service Awards to Jeff Durniak (GA) and Steve Moore. Jeff Durniak was not in attendance, but Jim Habera said that he would mail Jeff the plaque. Jim said that Jeff had served on the Trout Committee for 25 years and was Committee Chair in 1991 and 1992. Steve Moore had also served 25 years on the Trout Committee and had been instrumental in the organization of the first East Coast Trout Management and Culture Workshop. His other contributions include fishing injury research, the brook trout position statement, and the recent electrofishing gear comparison article published in May 2010.

East Coast Trout Management and Culture Workshop V: Jeb Wofford reported that the last East Coast Trout Workshop had been in 2005 and given the five-year rotation for this meeting the next workshop would have been in 2010. This was discussed in 2009 and it was agreed ny the Trout Committee that given recent restrictions in travel we did not want to compete with the Wild Trout Symposium, which was scheduled for September 2010. East Coast Trout Management and Culture Workshop V is tentatively scheduled for June 2012 at Frostburg University in Frostburg, Maryland. This is a relatively low cost meeting given the ability to stay in the university dorms.

Steve Moore gave a brief overview of how the East Coast Trout Workshop came to be. He said that given the location of Wild Trout there had been low and attendance and participation form eastern states. As a result, he and Jeff Durniak had the idea of organizing the first East Coast Trout Workshop.

Jeb Wofford indicated that organizing next East Coast Trout Workshop would involve three primary areas: 1) organizing the management and culture programs, 2) general arrangements for the meeting, and 3) editing the proceedings following the meeting. Alan Heft stated that Ray Morgan was going to handle the general arrangements. Larry Mohn had proposed this idea to Ray previously, but Alan was going to confirm that Ray will handle these responsibilities. Alan Heft will organize the management Program with assistance from Steve Moore and the Culture Program will be put together by George Duckwall (VA).

Steve Moore offered to contact Doug Stangey to see if he could assist in coordinating with northern states. Steve also said that he would contact Trout Unlimited to see if they would be willing to sponsor a portion of the workshop.

Jeb Wofford said that the 2012 Trout Committee meeting and the EBTJV Steering Committee will both be held in conjunction with the East Coast Trout Workshop.

ANS Treatment – Agency Policies/Actions: Jacob Rash (NC) had suggested this topic to determine if there was consistency in the message that member agencies are communicating to the public, especially pertaining to Didymo. This would also provide an opportunity for members to discuss their own protocols for reducing transfer risk on gear used for field work. Jacob was not present at the meeting so Jeb Wofford led the discussion. He cited the felt sole wader ban that had recently been implemented in Maryland and the fact that many wader manufacturers are voluntarily moving away from producing felt sole waders and wading shoes. Despite these initiatives Jeb felt that it was important to continue to encourage anglers to clean their gear as Didymo and other invasives could still be transferred on boot laces, in wader seams, and on landing net mesh. He went on to say that agencies need to set the tone for dealing with this issue by implementing standard protocols to reduce transfer risk on field gear. Following these initial remarks each agency described current measures being employed to reduce the risk of ANS transfer during field activities.

Shenandoah National Park (SNP) – Jeb Wofford began by indicating that they are following a standard gear cleaning protocol using a salt solution before moving from one stream to another. He said that the process does take time, but that they have been able to incorporate the necessary time into their field schedule. SNP also requires permitted guides to clean gear prior to fishing in the park. He uses a non-felt wading boot with aluminum cleats, but still follows the cleaning protocol to reduce transfer risk. Some of the technicians still use felt sole waders because of safety concerns. Jeb did not see a felt-sole ban in the park in the near future.

Missouri – Tom Whelan reported that Missouri was I the process of conducting public meetings to inform anglers and other stakeholders to inform them about the threat of didymo and the need to clean gear. Tom said that his agency is currently considering a felt-sole ban, although the extent of the ban had yet to be determined (statewide or on trout fisheries only). Measures used within the Missouri Department of Conservation (MDC) to reduce transfer risk include cleaning and drying gear before moving to another area or hatchery. MDC had also begun installing wader wash stations at their trout parks and Shepherd of the Hills Hatchery for angler use.

Virginia – Larry Mohn reported that Virginia was approaching the issue primarily from an education standpoint. There is no ban on felt-sole waders in Virginia and did not anticipate one because it would not remove all possible vectors of transfer (boot laces and net mesh). Within the agency they are generally cleaning gear only when moving between different areas.

Great Smoky Mountains National Park (GSMNP) – Steve Moore stated that they have approached invasive transfer by the public largely through education and development of a Hazard Analysis and Critical Control Point (HACCP) plan. GSMNP personnel are not required to clean gear if working within the park boundaries. However, they are required to clean field gear if they have worked outside the park. They do require all volunteers to clean gear prior to assisting with projects and require permitted guides to have certified cleaning procedures. Steve

indicated that there had been discussion at the Washingon level of the NPS of implementing a ban on felt-sole waders in all national parks.

Maryland – Alan Heft said that because of whirling disease issues in the state they have been using standard cleaning protocols for some time. He discussed the recent ban on felt-sole waders in Maryland. They have placed wader wash stations at several angler access points. Although Alan indicated that the stations are beneficial from an education standpoint, he recognized that the presence of the stations did not guarantee their use by anglers. He also said that the stations present some difficulties in keeping them properly maintained.

Tennessee – Jim Habera reported that didymo was a big problem in most tailwaters. Educational efforts have included informational signs at all angler access points and information on the TWRA website and in the trout guidebook. Jim said that Tennessee had developed a state ANS document. TWRA personnel still use felt-sole waders, but use separate field gear when working in wild trout streams versus working in tailwaters. Jim said that he did not anticipate a statewide ban on felt-sole waders.

Arkansas – Jeff Williams said that Arkansas had approached the issue of Didymo largely from an education and information standpoint. Signs have been placed at access points on all trout waters that include general information about Didymo as well as recommended cleaning procedures. This information has also been included on the agency website and in the annual trout guidebook. Although at least one Commissioner had inquired about felt-sole bans, there has been no major discussion about such a ban nor is one anticipated in the near future. Personnel in the statewide trout program do not currently follow standard cleaning procedures because all major trout waters are currently have Didymo and because of the amount of time between working in different areas allows for sufficient drying. However, because the potential exists to transfer other ANS species the statewide trout program is currently developing a standard protocol for cleaning field gear and boats.

West Virginia – Mike Shingleton said that Didymo has been confirmed in four West Virginia streams, but not in any tailwaters. The Diidymo generally blooms in spring in unshaded streams, but eventually dies and becomes dislodged as the season progresses. Mike reported that WVDNR personnel do not use felt-sole waders or boots for field work. However, WV Department of Environmental Protection personnel may work in several watersheds in one day and continue to use felt-soles. They have recently implemented a standard cleaning protocol for field gear and plan their sampling to begin in headwaters and work downstream.
In closing, there was general agreement that members of Trout Unlimited and other groups are generally being proactive about the need to take steps to prevent the spread of Didymo and other invasives. Individual anglers and the general public are more difficult to reach with this message. There was a recommendation to share existing gear cleaning protocols among member agencies.

Nomination and Election of New Trout Committee Officers: Jacob Rash will be the Committee Chair for the coming year. Matt Sell was nominated and approved by the Committee as chair-elect. Jeff Williams' term as treasurer will end next year.

2012 Trout Committee Meeting – Tentative Dates/Locations: The 2012 Trout Committee meeting will be held in conjunction with the East Coast Trout Management and Culture Workshop tentatively scheduled for June 2012 in Frostburg, Maryland.

Presentations

Savage River Trout Population Response to Catch-and-Release, Artificial Lures Regulations – Bob Hilderbrand – In January 2007, catch-and-release, artificial lures only regulations were implemented on streams in the Savage River watershed. Population data from the late 1980's and 1990's were compared to data from 2007-2208. This showed a substantial decline in adult brook trout abundance in the Savage river watershed. The researchers looked at data from eight streams in the watershed that had been sampled annually since 2006. Three 75m sections were sampled in each stream using three-pass depletion sampling. Sections were stratified by low, medium, and high angler access. Some of the key findings were that both the abundance of trout > 8 inches and the maximum length of brook trout were lower in high access sections when compared to low and medium access streams. Some areas of particular concern included Blue Lick where a decline in abundance occurred at all levels of angler access. On the Little Savage River a decline in abundance was observed in medium access sections. Conversely, Monroe Run showed an increase in abundance in high access sections, which are approaching abundance levels in medium and low access sections.

Brook Trout Life History – Matt Sell – Having identified gaps in general knowledge of brook trout populations (maximum age, survival, etc.) the researchers initiated a life history investigation using PIT tags and radio telemetry in Big Run and Monroe Run. Approximately 1,200 were PIT tagged in 2010. All age classes except YOY were tagged and adults were tagged in the dorsal sinus. Each month sampling is conducted of PIT tagged fish using PIT packs. Additionally stationary PIT antennas were placed in the streams. The radio telemetry portion of the study will evaluate seasonal movement of brook trout in these streams. All radio tagged fish were Floy tagged to look at susceptibility to harvest in certain areas. Thirty 8-inch trout were implanted with radio tags with coiled antennas. Tagged fish are relocated bi-weekly and after major flow events.

TMDL for pH Impaired Streams – Steve Moore – This presentation detailed work toward developing a TMDL for streams in the GSMNP listed in 2006 by the Tennessee Department of Environmental Quality (TDEQ) as impaired by acid deposition (pH < 6.0).
Air quality monitoring stations have been placed at a number of stations throughout the park and have revealed that the GSMNP receives some of the highest sulfate/nitrate deposition when compared to other areas in the nation. Much of this deposition comes form the Tennessee Valley and the Midwest. Heavy deposition of sulfate is being retained in the soil and calcium is being leached out of the soil in high elevation areas. Water quality monitoring is also being conducted within the park on a bi-monthly basis. Data from water quality monitoring efforts indicate that 10% of the streams within the park have a pH < 6.0 and approximately 3% have a pH less than 5.0.

In 2008, a partnership was formed among NPS staff, EPA, and TDEQ. A draft TMDL was delivered to GSMNP in 2009. Personnel from the GSMNP then developed a draft implementation plan to address the impaitment issue, but there is much work left to do. Syracuse University has been contracted run models to simulate the soil/system response to incremental decreases in acid deposition.

Future work on this issue will include sharing air quality monitoring data among partner agencies, determining current compliance with air and water quality standards, and identifying sources of the sulfates and nitrates. Steve also cited the need to link air and water quality data trout population sampling data. These may tie back to the previous discussion on the need for a cooperative sampling effort on a regional level.

Savage River Restoration Project – Alan Klotz – Savage Reservoir is impounded by an earthen dam and supports a two-story rainbow trout fishery. In December 2007, one of the emergency spill gates at the dam failed to open. Later, in July 2008 a detailed engineering assessment of the structure recommended replacement of all four gates. The American Recovery and Reinvestment Act provided $3.92 million for this project and construction began in November 2009. However, in order for the project to begin Savage Reservoir had to be completely drained. Heavy precipitation in January 2010 resulted in a large amount of sediment entering the Savage River below the dam. Reservoir draining was completed on January 31, 2010. Initial observations below the dam revealed no dead fish, but found sediment to be 2-3 feet thick in places and embeddedness ranging from 50-75%. Some dead trout and Blue Ridge sculpin were later found, but live individuals were observed as well. High volume flows in March 2010 filled the reservoir and 4,500 cfs flows began, which started to remove much of the accumulated sediment. After normal dam operations began turbidity levels decreased.

Pos- project evaluation in the lower Savage River revealed that all fish species present prior to reservoir draining were present in 2010 sampling. Adult brook trout abundance was 19% lower than pre-project levels. Few YOY brook trout were observed in 2010 and was likely a result of eggs being buried in sediments flushed from the reservoir. Sampled fish showed overall good condition. Within the reservoir 14 of the 16 species present before the draining were present after refilling including adult largemouth bass. Shoreline seining efforts produced YOY smallmouth bass.

Roundtable Discussion

Arkansas – Jeff Williams – Arkansas is currently revisiting the management plan for the trout fishery in the White River below Beaver Dam. This was the first tailwater management plan and was developed about 5 years ago. In 2006, a 13-16 inch protected slot limit was implemented on Beaver Tailwater in an effort to improve the size structure of the rainbow trout population. Annual population samples since that time have revealed a slight improvement in the size structure. However, a growth & mortality study initiated in 2010 suggests that the regulation may ultimately be limited by poor growth and high mortality.

In November and December of 2010 Arkansas began an annual batch marking of the stocked cohorts of brown trout, brook trout, and cutthroat trout. In 2010, approximately 68,000 brown trout and 10,000 brook trout were marked with a freeze-brand and stocked in Arkansas tailwaters. The observation of marked fish in subsequent population samples should provide much needed information on growth and mortality for these species.

Authorized minimum flow on the North Fork of the White River below Norfork Dam is scheduled to begin in March 2010. The Arkansas Game and Fish Commission is responsible for the relocation or modification of lake side facilities that will be impacted by higher lake elevations. This work has been completed and the work on the siphon tube, which will deliver the target minimum flow has begun. Minimum flow implementation on the White River below Bull Shoals Dam is still a few years away as the lake side relocations/modifications will cost more and take longer to complete. Unfortunately, no money was allocated for evaluation of the impacts of increased minimum flows on the tailwater trout fisheries.

Maryland – Alan Heft – Alan introduced a PIT tagging life history project underway in the Savage River and indicated that Matt Sell would be presenting information on that study. Alan Klotz will be delivering a presentation on the draining of Savage Reservoir.

Didymo was discovered in the lower Savage River. This was the first bloom of Didymo in the lower Savage River and it occurred after the draining of Savage Reservoir. The bloom has since dissipated, but they are monitoring it to determine if it will show up in the upper Savage River. Testing is being done using DNA analysis and it was first discovered in scrapings from the lower Savage River.

Alan discussed the felt sole wader ban recently implemented in Maryland. The push for the ban was spearheaded by the Marlyand Heritage ANS Group and was not a fishery agency recommendation. The impacts of Didymo on fisheries are currently unknown.

Maryland will be initiating a study of woody debris addition on some of its streams and rivers. Much of the woody debris in these systems was removed either intentionally or by flood events. They will look at woody debris addition in 50 m reaches. They have sent a letter to Trout Unlimited stating that they would not remove additional woody debris unless it is a safety issue.

Tennessee - Jim Habera - Drought conditions during the past several years, along with poor reproduction in 2009, combined to keep wild trout abundance below normal in several of our monitoring streams. Biomass at some monitoring stations in the Tellico River watershed (North River and Bald River) and in some brook trout streams was at the lowest observed since monitoring began (up to 20 years). Much better reproduction was evident in 2010 and should promote further recovery.

Preliminary fish distribution surveys and a barrier evaluation were completed in 2010 as part of the cooperative (TWRA/USFS/NPS) brook trout restoration project for the lower portion of Sycamore Creek, a Tellico River tributary in Monroe County. The rest of the project is on hold pending completion of an environment assessment.

Two tailwaters with protected length range regulations (PLRs or "slot limits") are currently producing different results. The 16"-22" PLR on the South Holston tailwater was established in 2000 and targets the wild brown trout fishery there. By 2006 (six years), the electrofishing catch rate for fish in the "slot" had more than tripled, but since then has fallen back nearly to the initial level (10 fish/h). The abundance of fish below the "slot" (particularly browns), however, has continued to increase and in March 2011 total catch rate (all trout ≥7") exceeded 400 fish/h (highest of any TN tailwater). There appears to be a stockpiling of fish below the slot, particularly in the 9"-13" range, with reduced recruitment to larger size classes and the beginning of reduced condition (*Wr*). Since the establishment of a 14"-20" PLR (targeting rainbow trout) on the Norris tailwater (Clinch River) in 2008, electrofishing catch rate for fish in the slot has increased from 3.5 fish/h to 50 fish/h in 2011. There has been no concurrently large increase in overall catch rate and recruitment into the slot has been excellent.

Brook trout have been stocked in the Norris tailwater since 2007 and continue to provide a fishery, although none over 13" have been captured during annual monitoring (anglers have reported catching fish up to 16"). Electrofishing catch rates have averaged ~5 fish/h—the current management plan objective.

New one-day fishing licenses for residents and non-residents. Fee for non-residents is $8 or $16 to include trout. Also have a S. Holston Reservoir license for $21 that allows TN anglers to fish the VA portion of the lake (part of new reciprocal agreement; VA now stocking all trout there).

TN has two new delayed harvest areas: Hiwassee River (former "Quality Zone") and Piney River in Cumberland Trail State Park. There are now a total of five DH areas in the state (including the W. Prong Little Pigeon River in Gatlinburg, Paint Creek, and Tellico River).

West Virginia – Mike Shingleton – New catch-and-release regulation on Shaver's Fork, which is located in the national forest, effective January 1, 2011. There were no comments received in opposition to the new regulation.

The West Virginia DNR now has a stream restoration program. NRCS is getting started on a mitigation project on Upper Shaver's Fork. This mitigation is for an impoundment constructed on a native brook trout stream. West Virginia will complete a couple of culvert replacements using EBTJV funds and they will try to do this before the NRCS work begins. Part of the mitigation plan will include monitoring for 5 years. The work will be done using natural channel design. West Virginia has signed off on the mitigation credits, but will need to re-evaluate because of bid cost change.

Shenandoah National Park - Jeb Wofford – 2010 monitoring results suggest brook trout year-class failure resulting from high flow events in winter 2009-2010. This was followed by a summer drought and high acid deposition during that time. Jeb indicated that they were not monitoring this year, but that he would be interested in the results of other monitoring efforts in Virginia.

SNP is looking at potential regulation changes in threatened streams. Currently, harvest is allowed on a few streams where flow and acid deposition are already an issue. Overall, harvest is thought to be low.

SNP is updating their monitoring protocols with everything going to NPS standards. This is being done for insect and water quality monitoring as well and they hope to integrate the data sets. They may be revisiting the sampling designs and protocols.

Missouri – Tom Whelan - Didymo is currently a major concern for MDC, especially for our coldwater streams. We are currently holding a series of public meeting and making contact with the venders who sell felt sole waders. After the meeting the information gathered will be presented to our regulations committee. Regulation options being considered are a state wide ban on felt sole waders, banning the use of felt sole waders only on our coldwater water streams, or just education and monitoring.

We have already install waders wash station at three of our Trout Parks and at Shepherd of The Hills Hatchery. These facilities provide anglers a convenient way to disinfect their waders and an opportunity to supply the public with information on Didymo at these four very important coldwater resources.

MDC is now providing the public the opportunity to purchase permits on-line.

Maramec Spring Hatchery has been positive for parasitic copepods for many years. All trout reared at that facility can only be stocked at that park and in the Maramec River. A study will be conducted where brook trout are placed in a rearing system above our Missouri strain of rainbow trout. It has been reported that brook trout impede the life cycle of the copepods and eliminate or reduce the infection of the rainbow trout below them. MDC now has a regulation requiring that all live fish, eggs, and gametes of the family Salmonidae must be certified as free of as currently free of parasitic copepods (*Salmincola spp.)*

All MDC hatcheries have Bio-security plans in place. The purpose of the plans are to reduce the chance of importing or exporting pathogens to or from other hatcheries and waters and to improve the ability to reduce disease outbreaks, isolate pathogens and reduce the risk of spreading them throughout the hatchery systems. In accordance with the plan the Department has a Zebra Mussel Prevention Policy. The Department will work to prevent the spread of Zebra Mussels from infested waters to uninfested waters. This policy requires all fish and eggs exposed to surface water coming into or leaving any of MDC's hatcheries or other facilities and any fish procured through contract or other means from outside sources must be treated during transportation. The only exception will be fish that are stocked into the same water supply that is used by the hatchery.

MDC will be conducting an evaluation of multiple strains of RBT in the Eleven Point River with Fisheries Management Biologist John Acherson in the lead. The evaluation will take into consideration the following objectives:

1. *Maintain a fishery of catchable-sized RBT within the Eleven Point River Blue Ribbon Trout Area (BRTA). This will be accomplished by increasing the current estimated first-year survival of 5% to at least 10% first-year survival of stocked fish within the BRTA.*

2. *Provide a "wild-type" fishing experience in the BRTA of the Eleven Point River through catch of fish with a long residence time. By stocking different strains of trout or smaller trout in higher numbers, fish surviving to a catchable size will more closely mimic wild fish in appearance and behavior. This will provide anglers with a better experience while saving MDC rearing costs.*

Virginia – Larry Mohn – Didymo has spread to all tailwater trout fisheries in Virginia. Similar to findings reported by Jeb Wofford, results of monitoring by Virginia Department of Game and Inland Fisheries (VDGIF) suggest brook trout year-class failure resulting from high flow events in winter 2009-2010.

Larry reported that VDGIF had undergone a major reorganization and that the agency is now managing statewide programs (to include trout) by committee. Hatcheries are now under the supervision of regional managers.

Seth Kaufman is now over the Trout Unlimited Shenandoah restoration program, which includes work on Beaver Creek and Mossy Creek. Also, Garth Run, which was wiped out in the 1996 flood still needs work done on the middle section.

VGDIF had been trying to produce triploid trout wit limited reliability. They are now trying to produce tetraploid using pressure shocking.

McConaughy steelhead are being replaced with ?, which will eat alewives. The McConaughy steelhead would not prey heavily on alewives.

New regulations include:

Jackson River – 12 – 16 inch slot limit on rainbow trout and an 18 inch minimum length limit, 1 fish on brown trout

Great Smoky Mountains National Park – Steve Moore – They are looking at data from brook trout streams to determine if a decrease in abundance of this species is related to droughts or other weather factors.

Work will begin on a project to eliminate rainbow trout from a stream where apparently anglers had reintroduced them. The rainbow trout are now reproducing in the stream. They will first identify where the rainbow trout are and remove the brook trout. Following treatment to remove the rainbow trout the brook trout will be put back in to the stream.

Steve reported that there is a small group of folks on the North Carolina side of the park that are convinced river otters are eating trout. These individuals are blaming the NPS for the abundance of river otters, although both North Carolina and Tennessee have had stocking programs for this species. Steve inquired if anyone had any information on the impacts of otter predation on wild brook trout streams.

Additionally, they will be addressing comments from anglers that say they aren't catching fish as they did 20-30 years ago.

North Carolina – Provided via e-mail by Jacob Rash

Trout Distribution

NCWRC has almost completed its initial round of trout resource inventory work. With nearly 30 years of data, the NCWRC plans to finish general efforts to identify trout populations within North Carolina's waters by the end of 2011. Although an effort to locate all trout species, this work was directed at identifying the State's brook trout populations. To date, over 600 brook trout populations have been identified.

Brook Trout Genetics

The NCWRC has been collecting genetic information for the State's brook trout in conjunction with trout distribution efforts. A non-lethal muscle biopsy has been used to obtain tissue for allozyme analysis. Results from genetic testing indicate 38% of populations are of Southern Appalachian origin, 10% are of northern origin, and 52% are of mixed genetic origin. The NCWRC will use additional genetic information (microsatellite DNA analysis) to gain further insight regarding historic distribution of Southern Appalachian brook trout, examine current population relatedness, and develop a genetically-based restoration framework.

Trout Management Plan

The NCWRC continues the process of revising its Trout Management Plan. This document serves as the guiding document for how the NCWRC manages trout; however, the current document was first crafted in 1989. Since that time, the NCWRC has conducted biological and socioeconomic research to inform trout management. To develop revisions to its initial plan, NCWRC used this research to gain information from trout angling constituents and management partners to assist with identification of critical program areas and specific goals to support each area. Staff held input meetings with other NCWRC Divisions (Conservation Education, Enforcement, and Wildlife Management), Division of Inland Fisheries programs (Watershed Enhancement, Aquatic Wildlife Diversity, and Technical Guidance), and non-NCWRC partners (Forest Service, Blue Ridge Parkway, North Carolina State Parks, Great Smoky Mountains National Park, Eastern Band of Cherokee Indians, and Trout Unlimited). In addition, staff held five focus group meetings with 42 trout anglers to receive their thoughts regarding trout management. Focus group participants represented anglers affiliated with organized angling groups (Trout Unlimited, Federation of Fly Fishers, or private fishing clubs), anglers not identified with organized angling groups, and trout angling guides. Selected participants from each of the five focus groups were asked to serve on an angler advisory committee to provide further input as the NCWRC refined program areas and goals. The NCWRC has identified 2011 as a target date for implementation of a new plan.

Eastern Brook Trout Joint Venture
The NCRWC has continued to be actively involved with the Eastern Brook Trout Joint Venture (EBTJV). Doug Besler and Jake Rash attended an EBTJV working meeting at Mountain Lake, Virginia, in October 2010. An update was provided on recent activities and gross cost estimates for the implementation of regional and state-level conservation strategies. Currently, Doug acts as Vice-Chair of the EBTJV Steering Committee and Jake serves as the Chair of the Conservation Strategy / Habitat Subcommittee.

Long-term Trout Monitoring
In 2011, the NCWRC will initiate efforts to obtain routine data on wild trout populations. Initial long-term monitoring efforts were completed in 1996; however, recent data are desired to gain a greater understanding of wild trout population dynamics in waters managed by the NCWRC. As appropriate, the NCWRC will seek to partner with fellow resource agencies to develop more robust data sets.

Persistence and Movement of Stocked Trout
The NCWRC is working with North Carolina State University to investigate the persistence and movement of stocked trout. The NCWRC manages approximately 1,000 miles of lentic resources under Hatchery Supported and Delayed Harvest Trout Water classifications. These fisheries are managed via intensive, seasonal stockings of catchable-size trout. Anglers and managers perceive that catch rates significantly decline through time following a stocking event. This trend is expected in Hatchery Supported Waters, where harvest is encouraged; however, declining catch rates are also observed in Delayed Harvest Waters during the period when harvest is not permitted. Increased understanding of stocked trout movement and survival after stocking events will allow mangers to maximize their efforts and the resource's potential.

Meeting Adjournment

The meeting was adjourned by Chair Jeb Wofford at approximately 4:30 pm.